REMARKS

The Examiner vacated the NOTICE OF ALLOWANCE mailed on November 6, 2006, and prosecution on the merits has been reopened.

Claims 1-69 are pending in the present application.

The Examiner has withdrawn the allowability of claims 1-69 and has raised new grounds of rejection under 35 USC § 102(e) in view of Tanaka (US 5,940,532).

Rejections Under 35 USC § 102

Claims 1-4, 20-27 and 47-50 have been rejected by the Examiner under 35 U.S.C. 102(e) as being anticipated by Tanaka (5,940,532).

As to claim 1, Tanaka discloses a method of translating handwritten input to machine readable characters (see for example, figs. 1 or 3) comprising:

obtaining a first data item (note, obtaining handwritten character entered by a pen or a tablet through a stroke detecting apparatus (see item 1, in fig 1); and

performing one or more recognition processing operations upon said data item by a preprocessor (see item 2, in fig 1), a special purpose hardware recognition processing unit (item 3, fig 1), a postprocessor (note, recognition post-processing apparatus (item 5, in fig 1), and a confirmed symbol observation source (note, the confirmation is performed by the post processor, where the postprocessor determines whether or not the recognition result by the recognition apparatus is correct) to produce a second data item, i.e., corrected handwritten character (see column 1, lines 44-47).

As to claims 2, 25, and 48, Tanaka discloses the method wherein said first data item is a handwritten symbol, (fig 12, element 20 tablet input device column 1, lines 56-62).

As to claims 3, 26 and 49, Tanaka discloses the method of altering said first data item by a preprocessor to a reduced form (column 2, lines 24-40).

As to claims 4, 27 and 50, Tanaka discloses the method wherein said step of altering is fully information preserving (column 2, lines 24-40).

As to claim 24, see the rejection of claim 1, above.

As to claim 47, see the rejection of claim 1, above.

Applicant respectfully disagrees. Applicant disagrees that the recognition post processing apparatus of Tanaka can be both post processor and confirmed symbol recognition source as suggested by the examiner. There is no teaching in Tanaka of a confirmed symbol recognition source. Instead, Tanaka describes dictionaries for use in determining if recognition is correct. A dictionary is not a confirmed symbol recognition source but is a database of characters against which the recognized symbol is compared. By contrast, a confirmed symbol recognition source comprises symbols confirmed as accurately recognized by the user. See paragraph 56 of the present published application which reads:

> "The unconfirmed symbol observation is presented to the writer. The writer can confirm a symbol, reject a symbol or make no determination. The postprocessor uses confirmed symbol observations (260), rejected symbol observations and unconfirmed symbol observations to adjust how it makes symbol observations. The preprocessor also uses confirmed symbol observations and unconfirmed symbol observations to adjust how it preprocesses the handwritten symbols. Additionally, training data (270) is used by the preprocessor, the RPU, and the postprocessor to adjust their calculation to achieve more accurate symbol translations."

Thus, the recognition post-processing apparatus of Tanaka does not teach or suggest the unconfirmed symbol observation source of the claimed invention and thus the claimed invention is not anticipated by Tanaka.

Further, even if it could be considered that the recognition post-processing apparatus of Tanaka reads on the confirmed symbol observation source of the application, Tanaka would still not anticipate the claimed invention. As amended, the independent claims include the limitation that the confirmed symbol recognition source operates in conjunction with both the pre-processor and the post-processor. There is no teaching or suggestion in Tanaka of using the recognition post-processing apparatus

in conjunction with the pre-processing apparatus. In fact, there is no connection between these devices in Tanaka so there could be no such teaching.

For the reasons above, independent claims 1, 20, 24, 43 and 47 are not anticipated by Tanaka and are allowable over the cited art.

Rejections Under 35 USC § 103

Claims 5-8, 11-15, 20-23, 28-31, 34-38, 43-46, 51-54, 57-61, and 63-67 were rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 5,940,532), as applied to claims 1-4, 24-27 and 47-50 and further in view of Platt et al. (US 5,812,698).

Regarding claims 5, 28 and 51, Tanaka discloses apparatus for and method of recognizing hand-written characters. Tanaka is silent about selecting one or more machine-readable characters by a postprocessor.

Platt discloses handwriting recognition system and method. The system comprises of:

selecting one or more machine-readable characters (note, machine-readable characters corresponds to upper and lower case) by a postprocessor (column 5, lines 44-46, 61-63).

As to claims 6, 29 and 52, Platt discloses the method wherein said special purpose hardware unit is configured to perform a first recognition processing operation (note, accepts data from tablet) and a second recognition processing operation (note, fig 1, 20 neural network) in parallel (fig 1, column 4, lines 6-9, 24-30, column 4, lnies 6-30, column 5, lines 2-5).

As to claims 7, 30 and 53, Platt discloses the method wherein said special hardware unit is configured (column 21, 20-27) to perform hidden Markov model computations (abstract, column 17, lines 3-11, column 21, lines 20-27, 40-44)

As to claims 8 and 31, Platt discloses the method wherein said special purpose hardware unit comprises:

a memory unit (fig 20, 336).

As to claims 11, 34, 54 and 57, Platt discloses the method wherein said data item is a combination of a plurality of handwritten symbols (fig 1, note plurality of symbol corresponds to ABC).

As to claims 12, 35, and 58, Platt discloses the method further comprising:

adjusting the operation of said special purpose hardware unit in accordance with a set of training data (abstract, column 16, lines 65-67, column 7, lines 33-41, column 21, lines 20-27, 40-51).

As to claims 13, 36 and 59, Platt discloses the method further comprising:

adjusting the operation of said preprocessor in accordance with a set of training data (column 16, lines 26-32, 65-67, abstract, column 7, lines 33-41, column 16, lines 26-32, column 17, lines 10-17, column 21, lines 20-27, 40-51).

As to claims 14, 37 and 60, Platt discloses the method further comprising:

adjusting the operation of said postprocessor (fig 1, item 22) in accordance with a set of training data (fig 1, item 20, column 5, lines 2-5, column 16, lines 26-32, column 17, lines 10-17).

As to claims 15, 38 and 61, Platt discloses the method wherein said step of selecting comprises:

determining a context of said data item (column 1, lines 9-40, column 5, lines 24-67, column 10, lines 21-27).

As to claims 21, 44 and 67, Platt discloses the method wherein said hidden Markov model operations are forward probability calculations (column 16, lines 26-40).

As to claims 22, 45 and 68, Platt discloses the method wherein said hidden Markov model operations are backward probability calculations (column 16, lines 26-40).

As to claims 23, 46 and 69, Platt discloses the method of wherein one or more wordlets (fig 20, 334) are part of a symbol alphabet (abstract, fig 1, column 21, lines 20-27, 52-63).

As to claim 20, argument analogous those presented for claim 1 are applicable to claim 20. Regarding performing one or more hidden Markov model operations upon…, as discloses by Platt as follow [sic] (abstract, column 17, lines 3-11, column 21, lines 20-27, 40-44)

As to claim 43, see the rejection of claim 20, above.

As to claim 66, see the rejection of claim 20, above.

With respect to independent claims 20 and 43, for the reasons given above, the prior art, either alone or in combination, does not teach, describe, or suggest the invention of amended independent claims 20 and 43.

As to the dependent claims herein , they are all dependent on allowable base claims and therefore are themselves allowable.

Rejections Under 35 USC § 103

Claims 9-10, 16-19, 32-33, 39-42, 55-56, and 62-65 have been rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 5,940,532), in view of Platt et al. (US 5,812,698), as applied to the claims 1-8, 11-15, 20-31, 34-38, 43-54, 57-61 and 66-69 above and further in view of Friend et al. (US 5,455,901).

Regarding claims 9, 32 and 55, Platt discloses handwriting recognition system and method Platt does not discloses presenting said machine readable characters to a user [sic].

Friend discloses an input device which is related to the field of handwritten data entry in computer system and it [sic] ability to translate original handwritten strokes of ink or blocks of ink into machine-readable words or characters for display. The system comprises of presenting said machine readable characters to a user (column 10, liens 5-18).

As to claims 10, 33 and 56, Friend discloses the method further comprising obtaining an indication from said user of whether said machine readable characters are a correct translation of said item (column 2, lines 1-37, column 6, lines 56-67, column 7, lines 14-47, column 9, lines 6-15).

As to claims 16, 39, and 62, Friend discloses the method wherein said step of selecting I further comprises determining a correctly spelled word wherein said machine readable characters appear in said correctly spelled word and said correctly spelled word is appropriate for said context (column 2, lines 1-37, column 6, lines 56-67, column 7, lines 14-47, column 9, lines 6-15).

As to claims 17, 40 and 63, Friend discloses the method wherein said step of selecting further comprises:

determining whether machine readable characters are grammatically incorrect for said context (column 2, lines 1-37, column 6, lines 56-67, column 7, lines 14-47, column 9, lines 6-15).

As to claims 18, 41 and 64, Friend discloses the method of claim 15 wherein said step of selecting further comprises:

determining a word in which said machine readable characters appear in said word and said word appeared previously in said context (column 6, lines 56-57, column 7, lines 1-47).

As to claims 19, 42 and 65, Friend discloses the method of claim 15 wherein said step of selecting further comprises:

examining a set of user information (column 7, lines 31-47).

As to the dependent claims herein , they are all dependent on allowable base claims and therefore are themselves allowable.

In view of the above amendments and remarks, applicants respectfully request that this application be reexamined and that the claims, as amended, be allowed.

Please charge any fees that may be due for the filing of this AMENDMENT or credit any overpayments to Deposit Account No. 07-1896.

Applicants also file concurrently herewith a new POWER OF ATTORNEY and STATEMENT UNDER 37 CFR 3.73(b).

Respectfully submitted,

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